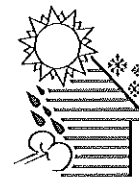


# Work Order Bid (ID)

CAC Housing Energy Services



CAC Housing &  
Energy Services

## WORK ORDER INFORMATION

**Work Order Name:** WO/80008KN1811/1

**Work Order Type:** Weatherization

**Audit Name:** 80008KN1811-audit

## CLIENT INFORMATION

**Client ID:** 80008KN1811

## AGENCY INFORMATION

**Agency:** Knoxville- Knox County Community Action Agency

**Agency Phone:** (865) 244-3080

**Address:** (PO Box 51650) 2247 Western Avenue  
Knoxville, TN 37950-1650

**Fax:** (865) 544-1647

**Email Address:**

**Agency Contact:** Cate, Aaron

**Work Phone:** (865) 244-3080

**Cell Phone:**

**Email Address:** aaron.cate@cachousing.org

**Company Name & License Number:** \_\_\_\_\_

**Contractor's Signature:** \_\_\_\_\_

## COMMENT

Comments

Single Family Dwelling

Contractor to follow 2006 International Residential Code as adopted by the City of Knoxville or Knox County as applicable.

City-House age is 1930

RRP Certified Firm/Renovator Required

## Measures

**Measure 1** Broken Pane (upto 10 square feet)  
w1,w2 (2),w3

**Components**

**Inspected**

**Comment** . Refer to Appendix A- Standards for  
Weatherization Materials and Tennessee Weatherization Field Guide.

☐

#	Material / Labor	Description / Comment	Units	Qty	Estimated		Actual		
					Unit Cost	Total	Qty	Unit Cost	Total
1	Labor	labor	Each	6	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
1	Unspecified	Broken Pane (upto 10 square feet) (+)	Each	6	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**Other Detail**

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**Measure Sub Total:**

**Sub Total:**

**Field Notes:**

**Measure 2 Flex Duct ( 16" ) (35 linear ft Return Box to Unit)****Components****Inspected**☐

**Comment** Flex Duct must be sized correctly. Flex Duct to be installed with straightest and shortest route, Must be secured with straps to alleviate sagging, and must be pulled tight so that inner liner is fully stretched out. Must have a minimum of R-8 insulation around it. Must be attached with zip tie and then taped with appropriate UL 181 tape. No changes allowed. Refer to Appendix A- Standards for Weatherization Materials and Tennessee Weatherization Field Guide.

#	Material / Labor	Description / Comment	Units	Qty	Estimated		Actual		
					Unit Cost	Total	Qty	Unit Cost	Total
1	Unspecified	Flex Duct	Linear Foot	35	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
1	Labor	labor	Linear Foot	35	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**Other Detail**

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**Measure Sub Total:****Sub Total:****Field Notes:**

**Measure 3 Return Box****Components****Inspected**

**Comment** Return box made of 28 gauge galvanized metal. Use S-lock to join metal. Liquid Mastic to be applied to return box to seal all seams. Seal front of return box where it meets return register with appropriate caulk. Insulate with R-8 Minimum. No changes allowed. Refer to Appendix A- Standards for Weatherization Materials and Southeast Field Guide. No changes allowed. Refer to Appendix A- Standards for Weatherization Materials and Southeast Field Guide.

☐

#	Material / Labor	Description / Comment	Units	Qty	Estimated		Actual		
					Unit Cost	Total	Qty	Unit Cost	Total
1	Construction Mate	Return Box	Each	1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
1	Labor	Labor Refer to Attachment A- Standards for Weatherization Materials and Southeast Field Guide.	Each	1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**Other Detail**

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**Measure Sub Total:****Sub Total:****Field Notes:**

**Measure 4 Return Register/Filter Grill****Components****Inspected**

**Comment** Return register to be replaced with same size. Return register to be sealed to existing return box and homeowner provided w/ 6 filters of that size. No changes allowed. Refer to Appendix A- Standards for Weatherization Materials and Southeast Field Guide.

☐

Remove old return line... Install new line from unit to new return box being installed.

#	Material / Labor	Description / Comment	Units	Qty	Estimated		Actual		
					Unit Cost	Total	Qty	Unit Cost	Total
1	Labor	Labor	Each	1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
1	Construction Mate	Return Register Refer to Attachment A- Standards for Weatherization Materials and Southeast Field Guide.	Each	1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**Other Detail**

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**Measure Sub Total:****Sub Total:****Field Notes:**

**Measure 5 Rod and Repair Floor Insulation 300 sq ft foundation 1 Components**

**Inspected**

**Comment** Refer to Appendix A- Standards for Weatherization Materials and Tennessee Weatherization Field Guide.

☐

#	Material / Labor	Description / Comment	Units	Qty	Estimated		Actual		
					Unit Cost	Total	Qty	Unit Cost	Total
1	Unspecified	Rod and Repair Floor Insulation (+)	SqFt	300	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
1	Labor	labor	SqFt	300	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**Other Detail**

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**Measure Sub Total:**

**Sub Total:**

**Field Notes:**

**Measure 6 DWH Tank Insulation****Components****Inspected**☐

**Comment** Water heaters should be re-insulated to at least R-10 with an external insulation blanket unless water heater label gives specific instructions not to insulate or the water heater is already insulated. Keep insulation at least 2 inches away from gas valve and burner access panel. Don't install insulation below the burner access panel. Flammable Vapor Ignition Resistant models have combustion intake vents that must be left open. Follow the manufacturer's instructions when installing insulation blankets on (FVIR) water heaters so to not damage unit. Don't cover the pressure relief valve and discharge pipe with insulation. Don't insulate the tops of gas fired water heaters to avoid obstructing draft diverter. Mark the blanket to locate the thermostat and heating element access plates or cut the blanket at these locations. When you cut the blanket, cut the bottom and the sides but not the top. This creates a flap that remains closed in place. Don't cover the pressure relief valve and discharge line. Cover the top of the water heater with insulation if it doesn't obstruct the pressure relief valve. Install three zip tie straps (1st 6" from the top 2nd in the Middle, 3rd- 6" from Bottom).

#	Material / Labor	Description / Comment	Units	Qty	Estimated		Actual		
					Unit Cost	Total	Qty	Unit Cost	Total
1	Hot Water Equipm	DHW Tank Insulation	Each	1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
2	Labor	DHW Tank Insulation	Each	1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<b>Other Detail</b>									
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<b>Measure Sub Total:</b>						<input type="text"/>	<b>Sub Total:</b>	<input type="text"/>	

**Field Notes:**

**Measure 7 DWH Pipe Insulation****Components****Inspected**☐

**Comment** Includes labor cost. Insulate the first 6 feet of hot and cold water pipe from water heater. Use pipe wrap with a R-value of at least 2. Cover elbows, unions, and other fittings to the same thickness as pipe. All corners must be cut properly. Keep pipe insulation 6 inches away from single wall vent pipe and 1 inch away from Type B vent. Interior diameter of pipe sleeve must match exterior diameter of pipe. Fasten with zip ties, tape, or other approved method. Refer to Appendix A- Standards for Weatherization Materials and Tennessee Weatherization Field Guide.

#	Material / Labor	Description / Comment	Units	Estimated			Actual		
				Qty	Unit Cost	Total	Qty	Unit Cost	Total
1	Insulation	DHW Pipe Insulation	Each	1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
2	Labor	DHW Pipe Insulation	Each	1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**Other Detail**

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**Measure Sub Total:****Sub Total:****Field Notes:**



**Comment**☐**Floor Insulation**

Includes labor cost. Contractor's responsibility to seal penetration in floor before installing insulation. Contractor to install using Resnet Grade 1 Standards. Insulation faced or unfaced is installed to maintain permanent contact with the subfloor above (paper side against subfloor) including necessary supports (e.g. staves for blankets). Insulation to have NO gaps, voids, or compressions. ✓ Install R19 insulation between floor joists. ✓ Insulation should be installed snugly against the floor and without voids or gaps. ✓ Insulation should fit snugly around cross bracing and other obstructions. ✓ securely fasten batt insulation to framing with insulation hangers, plastic mesh, or other supporting material. Insulation should contact subfloor to prevent convecting air above the insulation from reducing its R-value. ✓ Faced insulation should be installed with the foil or kraft facing placed up towards the floor sheathing. The batt should fill the whole cavity If insulation is supported by lath or plastic twine underneath. For batts that do not feel the whole cavity, use wire insulation supports. It is important that ground moisture barrier is properly installed in the crawlspace to protect the insulation and ensure proper R-value is achieved. Floor insulation should fit tightly against the rim joist. ✓ If balloon framed, air seal stud cavities prior to installing floor insulation. Refer to Appendix A- Standards for Weatherization Materials and Tennessee Weatherization Field Guide. The addition of insulation in an existing home is a common weatherization measure. Whenever there is installation of any type of floor, wall, or attic insulation, the Contractor must provide a certificate. This certificate is referred to as a "receipt" in the Federal Trade Commission's (FTC) guidance. This will be effective with any job posted August 15th or later.

This certificate should be given to the Client and/or Owner of the property. In addition, a copy of the certificate must be posted at the property and a copy of the certificate must be inserted in the Client's file and retained at the Agency.

**Points to remember about the Insulation Certificate:**

- The copied certificate posted at the property should be secured to a rafter, stud, or joist. It must be in plain view and placed close to an opening of the crawl space or attic for accessibility.
- For wall insulation a certificate should be secured on a wall in the attic if possible.
- A certificate can combine areas where insulation was installed as long as the certificate reflects all information for each area.
- For roll insulation the certificate must clearly show all the coverage area(s) where the insulation was installed, thickness of the insulation, and the R-value of the insulation installed. The certificate must be dated and signed by the Insulation Contractor.
- For loose-fill insulation, the certificate must be dated and signed by the

Contractor, show all the coverage area(s), initial installed thickness, minimum settled thickness, R-value, and the number of bags used.

•Although this insulation has not been approved by DOE for insulating use in the WAP, per the FTC, spray foam insulation certificate must be signed and dated by the Contractor, show all the coverage area(s) of the insulation and the R-value of the insulation installed.

•For aluminum foil, the receipt must show all the coverage area(s), the number and thickness of the air spaces, the direction of heat flow, and the R-value.

When providing the insulation certificate, Contractors who install insulation must comply with federal regulation 460.17.

#### § 460.17 What installers must tell their customers.

If you are an installer, you must give your customers a contract or receipt for the insulation you install. For all insulation except loose-fill and aluminum foil, the receipt must show the coverage area, thickness, and R-value of the insulation you installed. The receipt must be dated and signed by the installer. To figure out the R-value of the insulation, use the data that the manufacturer gives you. If you put insulation in more than one part of the house, put the data for each part on the receipt. You can do this on one receipt, as long as you do not add up the coverage areas or R-values for different parts of the house. Do not multiply the R-value for one inch by the number of inches you installed. For loose-fill, the receipt must show the coverage area, initial installed thickness, minimum settled thickness, R-value, and the number of bags used. For aluminum foil, the receipt must show the number and thickness of the air spaces, the direction of heat flow, and the R-value.

#	Material / Labor	Description / Comment	Units	Qty	Estimated		Actual		
					Unit Cost	Total	Qty	Unit Cost	Total
1	Insulation	Floor Insulation - Fiberglass Faced Batt - R-19	SqFt	416	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
2	Labor	Floor Insulation - Fiberglass Faced Batt - R-19	SqFt	416	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

#### Other Detail

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Measure Sub Total:

Sub Total:

#### Field Notes:

## Comment



## Floor Insulation

Includes labor cost. Contractor's responsibility to seal penetration in floor before installing insulation. Contractor to install using Resnet Grade 1 Standards. Insulation faced or unfaced is installed to maintain permanent contact with the subfloor above (paper side against subfloor) including necessary supports (e.g. staves for blankets). Insulation to have NO gaps, voids, or compressions. ✓ Install R19 insulation between floor joists. ✓ Insulation should be installed snugly against the floor and without voids or gaps. ✓ Insulation should fit snugly around cross bracing and other obstructions. ✓ securely fasten batt insulation to framing with insulation hangers, plastic mesh, or other supporting material. Insulation should contact subfloor to prevent convecting air above the insulation from reducing its R-value. ✓ Faced insulation should be installed with the foil or kraft facing placed up towards the floor sheathing. The batt should fill the whole cavity If insulation is supported by lath or plastic twine underneath. For batts that do not feel the whole cavity , use wire insulation supports .It is important that ground moisture barrier is properly installed in the crawlspace to protect the insulation and ensure proper R-value is achieved. Floor insulation should fit tightly against the rim joist. ✓ If balloon framed, air seal stud cavities prior to installing floor insulation. Refer to Appendix A- Standards for Weatherization Materials and Tennessee Weatherization Field Guide. The addition of insulation in an existing home is a common weatherization measure. Whenever there is installation of any type of floor, wall, or attic insulation, the Contractor must provide a certificate. This certificate is referred to as a "receipt" in the Federal Trade Commission's (FTC) guidance. This will be effective with any job posted August 15th or later.

This certificate should be given to the Client and/or Owner of the property. In addition, a copy of the certificate must be posted at the property and a copy of the certificate must be inserted in the Client's file and retained at the Agency.

## Points to remember about the Insulation Certificate:

- The copied certificate posted at the property should be secured to a rafter, stud, or joist. It must be in plain view and placed close to an opening of the crawl space or attic for accessibility.
- For wall insulation a certificate should be secured on a wall in the attic if possible.
- A certificate can combine areas where insulation was installed as long as the certificate reflects all information for each area.
- For roll insulation the certificate must clearly show all the coverage area(s) where the insulation was installed, thickness of the insulation, and the R-value of the insulation installed. The certificate must be dated and signed by the Insulation Contractor.
- For loose-fill insulation, the certificate must be dated and signed by the

Contractor, show all the coverage area(s), initial installed thickness, minimum settled thickness, R-value, and the number of bags used.

•Although this insulation has not been approved by DOE for insulating use in the WAP, per the FTC, spray foam insulation certificate must be signed and dated by the Contractor, show all the coverage area(s) of the insulation and the R-value of the insulation installed.

•For aluminum foil, the receipt must show all the coverage area(s), the number and thickness of the air spaces, the direction of heat flow, and the R-value.

When providing the insulation certificate, Contractors who install insulation must comply with federal regulation 460.17.

#### § 460.17 What installers must tell their customers.

If you are an installer, you must give your customers a contract or receipt for the insulation you install. For all insulation except loose-fill and aluminum foil, the receipt must show the coverage area, thickness, and R-value of the insulation you installed. The receipt must be dated and signed by the installer. To figure out the R-value of the insulation, use the data that the manufacturer gives you. If you put insulation in more than one part of the house, put the data for each part on the receipt. You can do this on one receipt, as long as you do not add up the coverage areas or R-values for different parts of the house. Do not multiply the R-value for one inch by the number of inches you installed. For loose-fill, the receipt must show the coverage area, initial installed thickness, minimum settled thickness, R-value, and the number of bags used. For aluminum foil, the receipt must show the number and thickness of the air spaces, the direction of heat flow, and the R-value.

Dryer Vents installed with damper. Metal pipe installed without any fasteners protruding through pipe.

Must be vented to outside of home. No changes allowed. Refer to Attachment A- Standards for Weatherization Materials and Tennessee Weatherization Field Guide.

#	Material / Labor	Description / Comment	Units	Qty	Estimated		Actual		
					Unit Cost	Total	Qty	Unit Cost	Total
1	Labor	Floor Insulation - Fiberglass Faced Batt - R-19	SqFt	150					
1	Insulation	Floor Insulation - Fiberglass Faced Batt - R-19	SqFt	150					
2	Miscellaneous Su	dryer vent	Each	1					

2 Labor	labor	Each	1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
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**Other Detail**

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

<b>Measure Sub Total:</b>	<input type="text"/>	<b>Sub Total:</b>	<input type="text"/>
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**Field Notes:**

## Comment



## Attic Insulation

Includes labor cost. Contractor to install 1 ruler for every 300 square foot of attic space showing depth of insulation. Insulation should cover the entire area intended for insulation without voids or edge gaps. Blown insulation should be installed at sufficient density to resist settling, according to manufacturer's instructions. Loose fiberglass is blown in attics from 0.5 to 0.9 pcf and at that density the R-value is around 3.2 per inch. Loose cellulose is blown in attics from 0.6 to 1.2 pcf and at that density range, the R-value is around 3.7 per inch. Insulation should be protected from air migrating around and through it by an effective air barrier. Air sealing attics must precede attic insulation and this may require removing existing insulation and debris that currently prevent effective air sealing. Box around recessed light fixtures and exhaust fans to prevent overheating and/or fire. Install collars or dams around masonry chimneys, B-vent chimneys, and manufactured chimneys after sealing the air leaks around them. ✓ If rolled metal is used as a barrier around heat-producing devices or chimneys, it must be fastened securely to the ceiling joist so the barrier won't collapse. Barriers should extend at least 4 inches above the insulation and be secured to keep insulation a minimum of 3 inches away from the heat-producing device. ✓ All-fuel wood-stove chimneys should have ventilated insulation shields. Covering recessed light fixtures: Covering recessed light fixtures with fire-resistant drywall or sheet-metal enclosures reduces air leakage and allows insulation to be blown around the box. ✓ If you plan to cover an electrical junction box with insulation, mark its location with a sign, flag, or other marker.

Install baffles in every joist or truss bay to ensure no insulation enters the soffit area. Seal holes, gaps, and penetrations in attic before insulating. Seal around chimney with sheet metal and high temperature silicone or fire resistant foam. Install R-30 fiberglass batt secured to attic access and weather strip with foam tape. Contractor to install using Resnet Grade 1 Standards. Refer to Appendix A- Standards for Weatherization Materials and Tennessee Weatherization Field Guide. The addition of insulation in an existing home is a common weatherization measure. Whenever there is installation of any type of floor, wall, or attic insulation, the Contractor must provide a certificate. This certificate is referred to as a "receipt" in the Federal Trade Commission's (FTC) guidance. This will be effective with any job posted August 15th or later.

This certificate should be given to the Client and/or Owner of the property. In addition, a copy of the certificate must be posted at the property and a copy of the certificate must be inserted in the Client's file and retained at the Agency.

## Points to remember about the Insulation Certificate:

- The copied certificate posted at the property should be secured to a rafter, stud, or joist. It must be in plain view and placed close to an opening of the crawl space or attic for accessibility.
- For wall insulation a certificate should be secured on a wall in the attic if possible.

- A certificate can combine areas where insulation was installed as long as the certificate reflects all information for each area.

- For roll insulation the certificate must clearly show all the coverage area(s) where the insulation was installed, thickness of the insulation, and the R-value of the insulation installed. The certificate must be dated and signed by the Insulation Contractor.

- For loose-fill insulation, the certificate must be dated and signed by the Contractor, show all the coverage area(s), initial installed thickness, minimum settled thickness, R-value, and the number of bags used.

- Although this insulation has not been approved by DOE for insulating use in the WAP, per the FTC, spray foam insulation certificate must be signed and dated by the Contractor, show all the coverage area(s) of the insulation and the R-value of the insulation installed.

- For aluminum foil, the receipt must show all the coverage area(s), the number and thickness of the air spaces, the direction of heat flow, and the R-value.

When providing the insulation certificate, Contractors who install insulation must comply with federal regulation 460.17.

#### § 460.17 What installers must tell their customers.

If you are an installer, you must give your customers a contract or receipt for the insulation you install. For all insulation except loose-fill and aluminum foil, the receipt must show the coverage area, thickness, and R-value of the insulation you installed. The receipt must be dated and signed by the installer. To figure out the R-value of the insulation, use the data that the manufacturer gives you. If you put insulation in more than one part of the house, put the data for each part on the receipt. You can do this on one receipt, as long as you do not add up the coverage areas or R-values for different parts of the house. Do not multiply the R-value for one inch by the number of inches you installed. For loose-fill, the receipt must show the coverage area, initial installed thickness, minimum settled thickness, R-value, and the number of bags used. For aluminum foil, the receipt must show the number and thickness of the air spaces, the direction of heat flow, and the R-value.

Cut in the ceiling an attic access door 22" x 30". If unable to achieve, then opening must be equal to 660 square inches 22" x 30". An attic access door is installed as a complete unit. A door is inclusive of foam seal, trim, paint (1st quality semi gloss color to be chosen by homeowner, caulk, and R-30 Batt insulation. Build an insulation dam around the attic access hatch. Insulate the hatch to R-30 value. Build the dam with rigid materials like plywood or oriented strand board so the dam supports

the weight of the person entering or leaving the attic. Weatherstrip the attic access to air seal the access and provide uninterrupted air barrier between the attic and conditioned space. It is the best practice to seal hatches in the unconditioned space such as carports and attached garages and stairwells. All attic hatches must have a locking device that securely hold the access in place and slightly compresses the weatherstripping.. Do not cut the framing member to install a hatch without approval from a local agency, a structural engineer, and local codes enforcement if applicable. The dam's purpose is to prevent loose-fill insulation from falling out of the attic hatch when opened. Install latches, sash locks, gate hooks or other positive closure to provide substantially airtight hatch closure. No changes allowed . Refer to Appendix A- Standards for Weatherization Materials and Tennessee Weatherization Field Guide.

#	Material / Labor	Description / Comment	Units	Qty	Estimated		Actual		
					Unit Cost	Total	Qty	Unit Cost	Total
1	Insulation	Attic Insulation - Fiberglass, Blown - R-30	SqFt	416					
1	Labor	Attic Insulation - Fiberglass, Blown - R-30	SqFt	416					
2	Miscellaneous Su	attic access	Each	1					
2	Labor	labor	Each	1					
<b>Other Detail</b>									
<b>Measure Sub Total:</b>							<b>Sub Total:</b>		

**Field Notes:**



**Measure 11 CO Monitor is Needed****Components****Inspected**

**Comment** . Refer to Appendix A- Standards for Weatherization Materials and Tennessee Weatherization Field Guide.

☐

#	Material / Labor	Description / Comment	Units	Qty	Estimated		Actual		
					Unit Cost	Total	Qty	Unit Cost	Total
1	Health and Safety	CO monitor	Each	1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
2	Labor	Labor	Each	1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**Other Detail**

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**Measure Sub Total:****Sub Total:****Field Notes:**

**Measure 12 Fix Improper Venting of Bathroom Exhaust Fan**

**Components**

**Inspected**

**Comment** Bath Vents installed to outside of home with appropriate roof fittings, sidewall fittings, or soffit fittings, Use rigid galvanized steel, stainless steel, or copper vent pipe for bath exhaust vent pipe .Insulate the vent pipe with R-8 to prevent condensation. Bathroom vent pipe must be securely fastened and sealed to prevent movement. Avoid using flexible plastic or aluminum duct because these restrict airflow. No changes allowed. Refer to Appendix A- Standards for Weatherization Materials and Tennessee Weatherization Field Guide.

☐

#	Material / Labor	Description / Comment	Units	Qty	Estimated		Actual		
					Unit Cost	Total	Qty	Unit Cost	Total
1	Health and Safety	Bath Vent w/ Piping to Outside	Each	1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
2	Labor	Labor	Each	1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<b>Other Detail</b>									
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<b>Measure Sub Total:</b>						<input type="text"/>	<b>Sub Total:</b>	<input type="text"/>	

**Field Notes:**

**Measure 13 Fix Ventilation Inadequate 2 roof vents low**

**Components**

**Inspected**

**Comment** Roof Vents installed on Low part of roof to achieve Net Free Ventilating Area of 1/300 of the area of space being ventilated. 1/2 high and 1/2 low. No changes allowed. Refer to Appendix A- Standards for Weatherization Materials and Tennessee Weatherization Field Guide.  
NOTE: Do not install roof vents on front part of house.

☐

#	Material / Labor	Description / Comment	Units	Qty	Estimated		Actual		
					Unit Cost	Total	Qty	Unit Cost	Total
1	Health and Safety	Roof Vent	Each	2	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
2	Labor	Labor	Each	2	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**Other Detail**

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
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**Measure Sub Total:**

**Sub Total:**

**Field Notes:**

**Measure 14 Install Electric Water Heater 50 Gallon****Components****Inspected****Comment** General Electric or equivalent.☐

Any replacement electric water heater should have an energy factor of at least 0.93 and be insulated with at least 2.5 inches of foam insulation.

Contractor to follow 2006 International Residential Code as adopted by the City of Knoxville or Knox County as applicable.

#	Material / Labor	Description / Comment	Units	Qty	Estimated		Actual		
					Unit Cost	Total	Qty	Unit Cost	Total
1	Health and Safety	Install Electric Water Heater	Each	1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
2	Labor	Labor	Each	1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**Other Detail**

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**Measure Sub Total:****Sub Total:****Field Notes:**

**Measure 15 Vapor Barrier Needed 504 sq ft  
(foundation 2)**

**Components**

**Inspected**

**Comment**

☐

Must be 6 mil poly. Must be installed 100% of crawlspace installed without voids or gaps with 6" turned up all foundation walls and interior support piers and must be securely fastened with polyurethane adhesive or acoustical sealant and (wood furring strips) . Must be secured at all seams. Overlap at least 12" at all joints. Seal the seams in the moisture barrier with construction tape or acoustical sealant making it a air moisture barrier. Keep plastic at least 3" away from any wood construction material. Refer to Appendix A- Standards for Weatherization Materials and Tennessee Weatherization Field Guide.

#	Material / Labor	Description / Comment	Units	Qty	Estimated		Actual		
					Unit Cost	Total	Qty	Unit Cost	Total
1	Health and Safety	Basement / Crawlspace Vapor Barrier	SqFt	504	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
2	Labor	Labor	SqFt	504	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**Other Detail**

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**Measure Sub Total:**

**Sub Total:**

**Field Notes:**

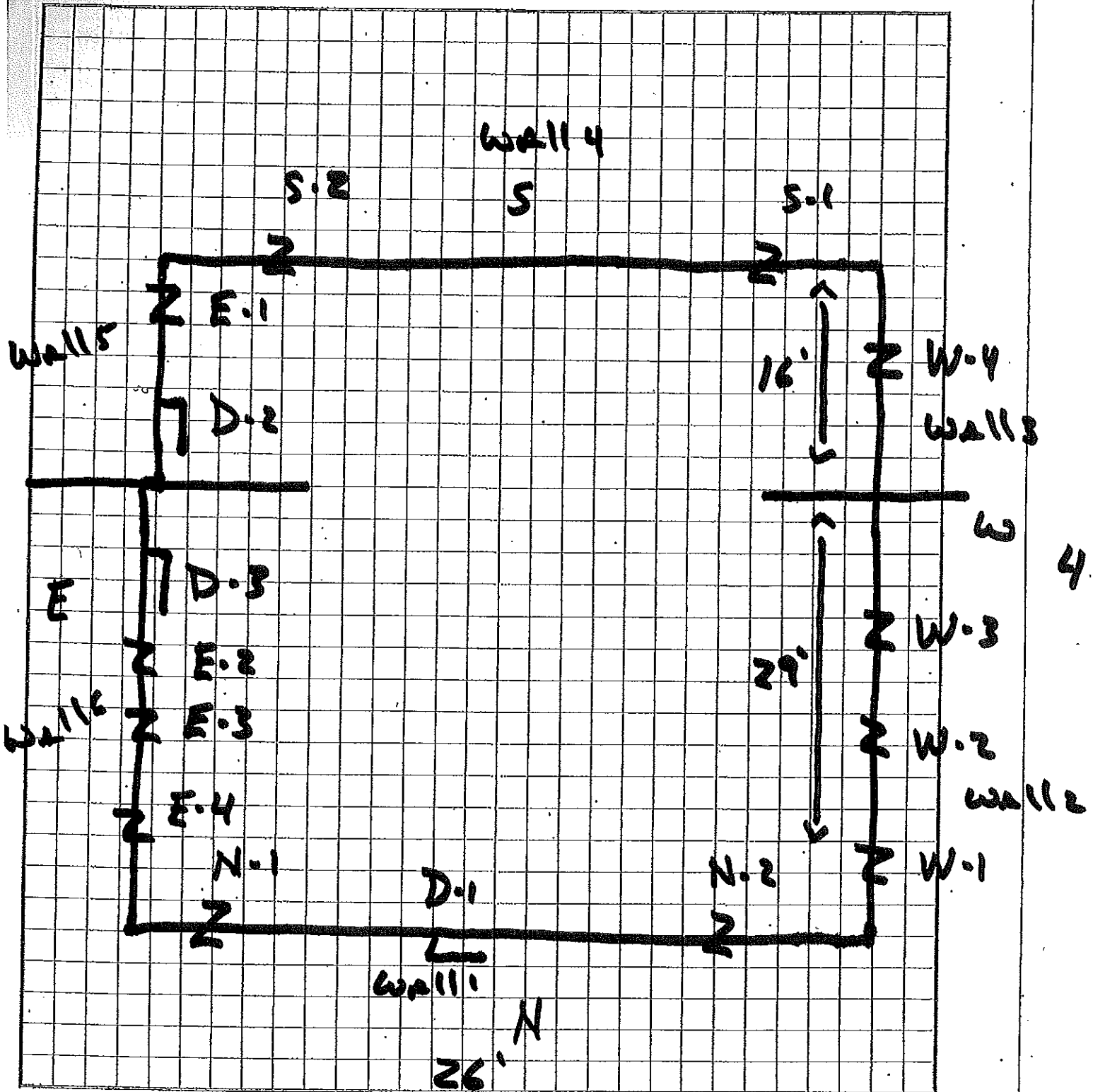
**Work Order Grand Total:**

**Grand Total:**

3 N1, N2, W1, W2, W3, E4  
 34 W4, S1, S2, E1,  
 0x33 E2, E3

D-1 33x80  
 D-2 32x80  
 D-3 34x80

Site Diagram



Client Name:   
 Client ID:   
 Alt. Client ID: